

Application Number: 10/573,052
Examiner: HAVLIN, ROBERT H

IN THE CLAIMS

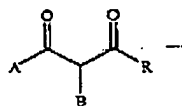
Please amend the claims of the present application under the provisions of 37 C.F.R. §1.121(c), as indicated below:

1. (Cancelled):

2. (Previously presented): The derivatives according to claim 17, characterized in that the compound having formula (I) are present as tautomeric forms, pure or as blends of tautomeric forms, in any proportion whatsoever

3-12 (Cancelled):

13. (Currently amended): Herbicidal compositions containing, one or more compounds having general formula (I):



wherein A, B and R have the meanings according to claim ~~[[18]]~~ 17, possibly also as a blend of tautomers .

14. (Currently amended): The herbicidal compositions according to claim 13, including other herbicides, fungicides, insecticides, acaricides, fertilizers, compatible with the compounds having general formula (I).

15. (Original): The herbicidal compositions according to claim 14, characterized in that the additional herbicides are selected from:

acetochlor, acifluorfen, aclonifen, AKH-7088, alachlor, alloxydim, ametryn, amicarbazone, amidosulfuron, amitrole, anilofos, asulam, atrazine, azafenidin,

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

azimsulfuron, aziprotryne, BAS 670 H, BAY MKH 6561, beflubutamid, benazolin, benfluralin, benfuresate, bensulfuron, bensulide, bentazone, benzfendazole, benzobicyclon, benzofenap, benzthiazuron, bifenox, bilanafos, bispyribac-sodium, bromacil, bromobutide, bromofenoxim, bromoxynil, butachlor, butafenacil, butamifos, butenachlor, butralin, butoxydim, butylate, cafenstrole, carbetamide, carfentrazone-ethyl, chlomethoxyfen, chloramben, chlorbromuron, chlorbufam, chlorflurenol, chloridazon, chlorimuron, chlormitrofen, chlorotoluron, chloroxuron, chlorpropham, chlorsulfuron, chlorthal, chlorthiamid, cinidon ethyl, cinmethylin, cinosulfuron, clethodim, clodinafop, clomazone, clomeprop, clopyralid, cloransulam-methyl, cumyluron (JC-940), cyanazine, cycloate, cyclosulfamuron, cycloxydim, cyhalofop-butyl, 2,4-D, 2,4-DB, daimuron, dalapon, desmedipham, desmetryn, dicamba, dichlobenil, dichlorprop, dichlorprop-P, diclofop, diclosulam, diethatyl, difenoxuron, difenzoquat, diflufenican, diflufenzopyr, dimefuron, dimepiperate, dimethachlor, dimethametryn, dimethenamid, dinitramine, dinoset, dinoseb acetate, dinoterb, diphenamid, dipropetryn, diquat, dithiopyr, 1-diuron, eglinazone, endothal, EPTC, esprocarb, ethalfluralin, ethametsulfuron-methyl, ethidimuron, ethiozin (SMY 1500), ethofumesate, ethoxyfen-ethyl (HC-252), ethoxysulfuron, etobenzanid (HW 52), fenoxaprop, fenoxaprop-P, fentazamide, fenuron, flamprop, flamprop-M, flazasulfuron, florasulam, fluazifop, fluazifop-P, fluazolate (JV 485), flucarbazone-sodium, fluchloralin, flufenacet, flufenpyr ethyl, flumetsulam, flumiclorac-pentyl, flumioxazin, flumipropin, fluometuron, fluoroglycofen, fluoronitrofen, flupoxam, fluproanate, flupyrsulfuron, flurenol, fluridone, flurochloridone, fluroxypyr, flurtamone, fluthiacet-methyl, fomesafen, foramsulfuron, fosamine, furyloxyfen, glufosinate, glyphosate, halosulfuron-methyl, haloxyfop, haloxyfop-P-methyl, hexazinone, imazamethabenz, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, indanofan, iodosulfuron, ioxynil, isopropalin, isoproturon, isouron, isoxaben, isoxachlortole, isoxaflutole, isoxapyrifop, KPP-421, lactofen, lenacil, linuron, LS830556, MCPA, MCPA-thioethyl, MCPB, mecoprop, mecoprop-P, mefenacet, mesosulfuron, mesotrione, metamitron, metazachlor,

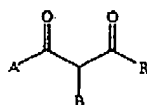
Application Number: 10/573,052
Examiner: HAVLIN, ROBERT H

methabenzthiazuron, methazole, methoprotetryne, methylidymron, metobenzuron, metobromuron, metolachlor, S-metolachlor, metosulam, metoxuron, metribuzin, metsulfuron, molinate, monalide, monolinuron, naproanilide, napropamide, naptalam, NC-330, neburon, nicosulfuron, nipyraclufen, norflurazon, orbencarb, oryzalin, oxadiargyl, oxadiazon, oxasulfuron, oxaziclomefone, oxyfluorfen, paraquat, pebulate, pendimethalin, penoxsulam, pentanochlor, pentoxazone, pethoxamid, phenmedipham, picloram, picolinafen, piperophos, pretilachlor, primisulfuron, prodiamine, proflumizox, proglazine, prometon, prometryne, propachlor, propanil, propaquizafop, propazine, propham, propisochlor, propyzamide, prosulfocarb, prosulfuron, pyraclostrobin, pyraflufen-ethyl, pyrazogyl (HAS-961), pyrazolynate, pyrazosulfuron, pyrazoxyfen, pyribenzoxim, pyributicarb, pyridafol, pyridate, pyrifthalid, pyriminobac-methyl, pyriothionac-sodium, quinclorac, quinmerac, quizalofop, quizalofop-P, rimsulfuron, sethoxydim, siduron, simazine, simetryn, sulcotrione, sulfentrazone, sulfometuron-methyl, sulfosulfuron, 2,3,6-TBA, TCA-sodium, tebutam, tebuthiuron, tepraloxym, terbacil, terbutolol, terbuthylazine, terbutryn, thenylchlor, thiazafuron, thiazopyr, thidiazimin, thifensulfuron-methyl, thiobencarb, tiocarbazon, tioclorim, tralkoxydim, tri-allate, triasulfuron, triaziflam, tribenuron, triclopyr, trietazine, trifloxysulfuron, trifluralin, triflusulfuron-methyl, tritosulfuron, UBI-C4874, vernolate.

16. (Original): The compositions according to any of the claims 13-15, characterized in that the concentration of active substance ranges from 1 to 90%.

17. (New): Derivatives of 1,3-diones having general formula (I):

(I)



Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

wherein:

-A represents:

an aryl group optionally substituted by one or more substituents selected from halogen; NO₂; CN; CHO; OH; linear or branched C₁-C₆ alkyl; linear or branched C₁-C₆ haloalkyl; linear or branched C₁-C₆ alkoxy; linear or branched C₁-C₆ haloalkoxy; C₁-C₆ cyanoalkyl; C₂-C₆ alkoxyalkyl; C₂-C₆ alkylthioalkyl; C₂-C₆ alkylsulfinylalkyl; C₂-C₆ alkylsulfonylalkyl; C₂-C₆ haloalkoxyalkyl; C₂-C₆ haloalkylthioalkyl; C₂-C₆ haloalkylsulfinylalkyl; C₂-C₆ haloalkylsulfonylalkyl; C₂-C₆ alkoxyalkoxy or C₂-C₆ haloalkoxyalkoxy optionally substituted with a group selected from C₁-C₄ alkoxy or C₁-C₄ haloalkoxy; C₂-C₆ alkylthioalkoxy; C₂-C₆ haloalkylthioalkoxy; C₃-C₁₂ dialkoxyalkyl; C₃-C₁₂ dialkylthioalkyl; C₃-C₁₂ dialkylthioalkoxy; C₃-C₁₂ dialkoxyalkoxy; C₂-C₆ haloalkoxyhaloalkoxy; C₃-C₁₀ alkoxyalkoxyalkyl; C₂-C₆ alkenyl; C₂-C₆ haloalkenyl; C₂-C₆ alkenyloxy; C₂-C₆ haloalkenyloxy; C₃-C₈ alkenyloxyalkoxy; C₃-C₈ haloalkenyloxyalkoxy; C₂-C₆ alkynyl; C₂-C₆ haloalkynyl; C₂-C₆ alkynyloxy; C₂-C₆ haloalkynyloxy; C₃-C₈ alkynyloxyalkoxy; C₃-C₈ haloalkynyloxyalkoxy; C₃-C₁₂ acylaminoalkoxy; C₂-C₈ alkoxyiminoalkyl; C₂-C₈ haloalkoxyiminoalkyl; C₃-C₈ alkenyloxyiminoalkyl; C₃-C₈ haloalkenyloxyiminoalkyl; C₃-C₈ alkynyloxyiminoalkyl; C₃-C₈ haloalkynyloxyiminoalkyl; C₅-C₁₀ alkoxyalkynyloxy; C₆-C₁₂ cycloalkylideneiminoalkoxy; C₆-C₁₂ dialkylideneiminoalkoxy; —S(O)_mR₁; —OS(O)_tR₁; —SO₂NR₂R₃; —CO₂R₄; —COR₅; —CONR₆R₇; —CSNR₈R₉; —NR₁₀R₁₁; —NR₁₂COR₁₃; —NR₁₄CO₂R₁₅; —NR₁₆CONR₁₇R₁₈; —PO(R₁₉)₂; -Q; -ZQ₁; —(CR₂₀R₂₁)pQ₂; -Z(CR₂₂R₂₃)pQ₃; —(CR₂₄R₂₅)pZQ₄; —(CR₂₆R₂₇)pZ(CR₂₈R₂₉)qQ₅; —(CR₃₀R₃₁)pZ(CR₃₂R₃₃)qZ₁Q₆; -Z₂(CR₃₄R₃₅)p(C=Y)T; -Z₃(CR₃₆R₃₇)v(CR₃₈R₃₉=CR₄₀R₄₁)(C=Y)T;

or it represents a heterocyclic group selected from pyridyl; pyrimidyl; quinolinyl; pyrazolyl; thiazolyl; oxazolyl; thienyl; furyl; benzothienyl; dihydrobenzothienyl; benzofuranyl; dihydrobenzofuranyl; benzoxazolyl; benzoxazolonyl; benzothiazolyl;

Application Number: 10/573,052
 Examiner: HAVLIN, ROBERT H

benzothiazolonyl; benzoimidazolyl; benzoimidazolonyl; benzotriazolyl; chromanonyl; chromanyl; thiochromanonyl; thiochromanyl;
 3a,4-dihydro-3H-indeno[1,2-c]isoxazolyl, 3a,4-dihydro-3H-chromeno[4,3-c]isoxazolyl, 5,5-dioxide-3a,4-dihydro-3H-thiochromeno[4,3-c]isoxazolyl, 2,3,3a,4-tetrahydrochromeno[4,3-c]pyrazolyl, 6,6-dioxide-2,3-dihydro-5H-[1,4]dithiino[2,3-c]thiochromenyl, 5,5-dioxide-2,3,3a,4-tetrahydrothiochromeno[4,3-c]pyrazolyl, 1',1'-dioxide-2',3'-dihydrospiro[1,3-dioxolano-2,4'-thiochromen]-yl, 1,1,4,4-tetraoxide-2,3-dihydro-1,4-benzodithiin-6-yl, 4,4-dioxide-2,3-dihydro-1,4-benzoxathiin-7-yl, 1,1-dioxide-3-oxo-2,3-dihydro-1,2-benzoisothiazol-5-yl, 4-(alkoxyimino)-1,1-dioxide-3,4-dihydro-2H-thiochromen-6-yl, 1,1-dioxide-4-oxo-3,4-dihydro-2H-thiochromen-6-yl, 2,3-dihydro-1,4-benzoxathiin-7-yl, with said heterocyclic groups optionally substituted by one or more substituents selected from halogen; NO₂; CN; CHO; OH; linear or branched C₁-C₆ alkyl; linear or branched C₁-C₆ haloalkyl; linear or branched C₁-C₆ alkoxy; linear or branched C₁-C₆ haloalkoxy; C₁-C₆ cyanoalkyl; C₂-C₆ alkoxyalkyl; C₂-C₆ alkylthioalkyl; C₂-C₆ alkyl sulfinylalkyl; C₂-C₆ alkylsulfonylalkyl; C₂-C₆ haloalkoxyalkyl; C₂-C₆ haloalkylthioalkyl; C₂-C₆ haloalkylsulfinylalkyl; C₂-C₆ haloalkylsulfonylalkyl; C₂-C₆ alkoxyalkoxy or C₂-C₆ haloalkoxyalkoxy optionally substituted with a group selected from C₁-C₄ alkoxy or C₁-C₄ haloalkoxy; C₂-C₆ alkylthioalkoxy; C₂-C₆ haloalkylthioalkoxy; C₃-C₁₂ dialkoxyalkyl; C₃-C₁₂ dialkylthioalkyl; C₃-C₁₂ dialkylthioalkoxy; C₃-C₁₂ dialkoxyalkoxy; C₂-C₆ haloalkoxyhaloalkoxy; C₃-C₁₀ alkoxyalkoxyalkyl; C₂-C₆ alkenyl; C₂-C₆ haloalkenyl; C₂-C₆ alkenyloxy; C₂-C₆ haloalkenyloxy; C₃-C₈ alkenyloxyalkoxy; C₃-C₈ haloalkenyloxyalkoxy; C₂-C₆ alkynyl; C₂-C₆ haloalkynyl; C₂-C₆ alkynyloxy; C₂-C₆ haloalkynyloxy; C₃-C₈ alkynyloxyalkoxy; C₃-C₈ haloalkynyloxyalkoxy; C₃-C₁₂ acylaminoalkoxy; C₂-C₈ alkoxyiminoalkyl; C₂-C₈ haloalkoxyiminoalkyl; C₃-C₈ alkenyloxyiminoalkyl; C₃-C₈ haloalkenyloxyiminoalkyl; C₃-C₈ alkynyloxyiminoalkyl; C₃-C₈ haloalkynyloxyiminoalkyl; C₅-C₃₀ alkoxyalkynyloxy; C₆-C₁₂ cycloalkyl idenciminooxyalkyl; C₆-C₁₂ dialkylideneiminooxyalkyl; —S(O)_mR₁; —OS(O)_nR₁; —SO₂NR₂R₃; —CO₂R₄; —COR₅; —CONR₆R₇; —CSNR₈R₉; —NR₁₀R₁₁; —

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

$\text{NR}_{12}\text{COR}_{13}$; $\text{---NR}_{14}\text{CO}_2\text{R}_{15}$; $\text{---NR}_{16}\text{CONR}_{17}\text{R}_{18}$; $\text{---PO}(\text{R}_{19})_2$; ---Q ; ---ZQ_1 ; ---
 $(\text{CR}_{20}\text{R}_{21})_p\text{Q}_2$; $\text{---Z}(\text{CR}_{22}\text{R}_{23})_p\text{Q}_3$; $\text{---}(\text{CR}_{24}\text{R}_{25})_p\text{ZQ}_4$; $\text{---}(\text{CR}_{26}\text{R}_{27})_p\text{Z}(\text{CR}_{29}\text{R}_{29})_q\text{Q}_5$; ---
 $(\text{CR}_{30}\text{R}_{31})_p\text{Z}(\text{CR}_{32}\text{R}_{33})_q\text{Z}_1\text{Q}_6$; $\text{---Z}_2(\text{CR}_{34}\text{R}_{35})_p(\text{C}=\text{Y})\text{T}$; $\text{---Z}_3(\text{CR}_{36}\text{R}_{37})$;
 $(\text{CR}_{38}\text{R}_{39}=\text{CR}_{40}\text{R}_{41})(\text{C}=\text{Y})\text{T}$;

-B represents a $\text{D}-(\text{R}_x)_n$ group;

-R represents a hydrogen atom; a linear or branched $\text{C}_1\text{--C}_6$ alkyl group; a linear or branched $\text{C}_1\text{--C}_6$ haloalkyl group; a $\text{C}_3\text{--C}_6$ cycloalkyl or $\text{C}_4\text{--C}_{12}$ cyclo-alkylalkyl group optionally substituted with halogen atoms or $\text{C}_1\text{--C}_6$ alkyl or $\text{C}_1\text{--C}_6$ thioalkyl or $\text{C}_1\text{--C}_6$ alkoxy or $\text{C}_2\text{--C}_6$ alkoxy carbonyl groups; $\text{C}_2\text{--C}_6$ alkenyl groups; $\text{C}_2\text{--C}_6$ alkynyl groups; the latter two groups, in turn, optionally substituted with halogen atoms; a $\text{C}_5\text{--C}_6$ cycloalkenyl group optionally substituted with halogen atoms or $\text{C}_1\text{--C}_6$ alkyl groups; an aryl or arylalkyl group optionally substituted;

---R_1 and R_{19} represent a $\text{C}_1\text{--C}_6$ alkyl group or a $\text{C}_1\text{--C}_6$ haloalkyl group; a $\text{C}_3\text{--C}_6$ cycloalkyl group; an aryl group optionally substituted by one or more substituents selected from halogen, NO_2 , CN , CHO , linear or branched $\text{C}_1\text{--C}_6$ alkyl, linear or branched $\text{C}_1\text{--C}_6$ haloalkyl, linear or branched $\text{C}_1\text{--C}_6$ alkoxy, linear or branched $\text{C}_3\text{--C}_6$ haloalkoxy, $\text{C}_1\text{--C}_6$ alkylsulfonyl, $\text{C}_2\text{--C}_6$ alkoxy carbonyl;

-m is equal to 0, 1 or 2;

-t is equal to 1 or 2;

---R_2 , R_3 , R_6 , R_7 , R_8 , R_9 , R_{10} , R_{11} , R_{17} and R_{18} , the same or different, represent a hydrogen atom; a linear or branched $\text{C}_1\text{--C}_6$ alkyl group in turn optionally substituted with halogen atoms; a $\text{C}_1\text{--C}_6$ alkoxy group; a $\text{C}_3\text{--C}_6$ cycloalkyl group; an arylalkyl group or an aryl group; said arylalkyl and aryl groups also optionally substituted by

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

one or more substituents selected from halogen, NO₂, CN, CHO, linear or branched C₁-C₆ alkyl, linear or branched C₁-C₆ haloalkyl, linear or branched C₁-C₆ alkoxy, linear or branched C₁-C₆ haloalkoxy, C₁-C₆ alkylsulfonyl, C₂-C₆ alkoxy-carbonyl, or, together with the group bonded to the same N atom, they jointly represent a C₂-C₅ alkylene group;

-R₄, R₅ and R₄₂ represent a hydrogen atom; a linear or branched C₁-C₆ alkyl group in turn optionally substituted with halogen atoms; a C₃-C₆ alkenyl group in turn optionally substituted with halogen atoms; a Q₇ group, an arylalkyl group optionally substituted by one or more substituents selected from halogen, NO₂, CN, CHO, linear or branched C₁-C₆ alkyl, linear or branched C₁-C₆ haloalkyl, linear or branched C₁-C₆ alkoxy, linear or branched C₁-C₆ haloalkoxy, C₁-C₆ alkylsulfonyl, C₂-C₆ alkoxy-carbonyl;

-R₁₂, R₁₄ and R₁₆ represent a hydrogen atom; a linear or branched C₁-C₆ alkyl group in turn optionally substituted with halogen atoms; a C₃-C₆ cycloalkyl group; a C₁-C₆ alkoxy group; a C₁-C₆ haloalkoxy group;

-R₁₃ and R₁₅ represent a hydrogen atom; a linear or branched C₁-C₆ alkyl group in turn optionally substituted with halogen atoms; a C₃-C₆ alkenyl group in turn optionally substituted with halogen atoms; a Q₇, NH₂, NHCN, NHNH₂, NHOH group, an arylalkyl group optionally substituted by one or more substituents selected from halogen, NO₂, CN, CHO, linear or branched C₃-C₆ alkyl, linear or branched C₁-C₆ haloalkyl, linear or branched C₁-C₆ alkoxy, linear or branched C₁-C₆ haloalkoxy, C₁-C₆ alkylsulfonyl, C₂-C₆ alkoxy-carbonyl;

R₂₀, R₂₁, R₂₂, R₂₃, R₂₄, R₂₅, R₂₆, R₂₇, R₂₈, R₂₉, R₃₀, R₃₁, R₃₂, R₃₃, R₃₄, R₃₅, R₃₆, R₃₇, R₃₈, R₃₉, R₄₀ and R₄₁, the same or different, represent: a hydrogen atom; a linear or branched C₁-C₆ alkyl group in turn optionally substituted with halogen atoms; a C₁-C₆

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

alkoxyl group; or the two groups attached to the same carbon atom can be joined to each other by C₂-C₅ alkylene groups, the alkylene groups can in turn be substituted with C₁-C₃ alkyl groups;

-Q, Q₁, Q₂, Q₃, Q₄, Q₅, Q₆ and Q₇ represent an aryl group; a C₃-C₆ cycloalkyl group; a C₅-C₆ cycloalkenyl group; a heterocyclic group selected from triazolyl; triazolonyl; pyrazolyl; imidazolyl; imidazolidinonyl; tetrazolyl; tetrazolonyl; isoxazolyl; furyl; thienyl; pyrrolyl; pyrrolidinyl; pyrrolidinonyl; pyridyl; pyrimidinyl; pyrimidinonyl; pyrazinyl; pyridazinyl; oxazolyl; thiazolyl; oxadiazolyl; thiadiazolyl; isothiazolyl; benzoxazolyl; benzothiazolyl; isoxazolinyll; 1,3-dioxanyl; 1,4-dioxanyl; 1,3-dioxolanyl; tetrahydropyranyl; oxethanyl; oxyranyl; thiazolidinyl; oxazolidinyl; piperidinyl; piperidinonyl; piperazinyl; morpholinyl; thiazinyl; tetrahydrofuranyl; dioxazolyl; tetrahydrofuroisoxazolyl; 2-oxa-3-azabicyclo[3.1.0]hex-3-enyl; said groups optionally substituted by one or more substituents selected from halogen; NO₂; OH; CN; CHO; linear or branched C₁-C₆ alkyl; linear or branched C₁-C₆ haloalkyl; linear or branched C₁-C₆ alkoxyl; linear or branched C₁-C₆ haloalkoxyl; C₁-C₆ cyanoalkyl; C₂-C₆ alkoxyalkyl; C₂-C₆ alkylthioalkyl; C₂-C₆ alkylsulfinylalkyl; C₂-C₆ alkylsulfonylalkyl; C₂-C₆ haloalkoxyalkyl; C₂-C₆ haloalkylthioalkyl; C₂-C₆ haloalkylsulfinylalkyl; C₂-C₆ haloalkylsulfonylalkyl; C₂-C₆ alkoxyalkoxyl or C₂-C₆ haloalkoxyalkoxyl optionally substituted with a group selected from C₁-C₄ alkoxyl or C₁-C₄ haloalkoxyl; C₂-C₆ alkylthioalkoxyl; C₂-C₆ haloalkylthioalkoxyl; C₃-C₁₂ dialkoxyalkyl; C₃-C₁₂ dialkylthioalkyl; C₃-C₁₂ dialkylthioalkoxyl; C₃-C₁₂ dialkoxyalkoxyl; C₂-C₆ haloalkoxyhaloalkoxyl; C₃-C₁₀ alkoxyalkoxyalkyl; C₂-C₆ alkenyl; C₂-C₆ haloalkenyl; C₂-C₆ alkenyloxy; C₂-C₆ haloalkenyloxy; C₃-C₈ alkenyloxyalkoxyl; C₃-C₈ haloalkenyloxyalkoxyl; C₂-C₆ alkynyl; C₂-C₆ haloalkynyl; C₂-C₆ alkynyloxy; C₂-C₆ haloalkynyloxy; C₃-C₈ alkynyloxyalkoxyl; C₃-C₈ haloalkynyloxyalkoxyl; C₃-C₁₂ acylaminoalkoxy; C₂-C₈ alkoxyiminoalkyl; C₂-C₈ haloalkoxyiminoalkyl; C₃-C₈ alkenyloxyiminoalkyl; C₂-C₈ haloalkenyloxyiminoalkyl; C₃-C₈ alkynyloxyiminoalkyl; C₃-C₈ haloalkynyloxyiminoalkyl; C₅-C₁₀

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

alkoxyalkynyloxy; C₆-C₁₂ cycloalkylideneiminooxyalkyl; C₆-C₁₂
 dialkylidenciminooxyalkyl; aryl optionally substituted; —S(O)_mR₁; —OS(O)_tR₁; —
 SO₂NR₂R₃; —CO₂R₄; —COR₅; —CONR₆R₇; —CSNR₈R₉; —NR₁₀R₁₁; —
 NR₁₂COR₁₃; —NR₁₄CO₂R₁₅; —NR₁₆CONR₁₇R₁₈; —PO(R₁₉)₂; -
 Z₂(CR₃₄R₃₅)_p(C=Y)T; -Z₃(CR₃₆R₃₇)_v(CR₃₈R₃₉=CR₄₀R₄₁)(C=Y)T;

Z, Z₁, Z₂=O, S(O)_r;

Y=O, S;

r is equal to 0, 1 or 2;

p, q are equal to 1, 2, 3 or 4;

v is equal to 0 or 1;

Z₃=O, S or a direct bond;

T represents: a hydrogen atom; a Z₄R₄₂ group; a —NR₄₃R₄₄ group; an aryl group or a
 heterocyclic group selected from triazolyl; triazolonyl; pyrazolyl; imidazolyl;
 imidazolidinonyl; tetrazolyl; tetrazolonyl; pyrrolyl; pyrrolidinyl; pyrrolidinonyl;
 pyridyl; pyrimidinyl; piperidinyl; piperidinonyl; piperazinyl; morpholinyl; said aryl
 and heterocyclic groups optionally substituted by one or more substituents selected
 from halogen; NO₂; OH; CN; CHO; linear or branched C₁-C₆ alkyl; linear or branched
 C₁-C₆ haloalkyl; C₃-C₆ cycloalkyl; C₅-C₆ cycloalkenyl; linear or branched C₁-C₆
 alkoxy; linear or branched C₁-C₆ haloalkoxy; C₃-C₆ cyanoalkyl; C₂-C₆ alkoxyalkyl;
 C₂-C₆ alkylthioalkyl; C₂-C₆ alkylsulfinylalkyl; C₂-C₆ alkylsulfonylalkyl; C₂-C₆
 haloalkoxyalkyl; C₂-C₆ haloalkylthioalkyl; C₂-C₆ haloalkylsulfinylalkyl; C₂-C₆
 haloalkylsulfonylalkyl; —S(O)_mR₁;

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

Z₄=O, S or a direct bond;

R₄₃ and R₄₄, the same or different, represent: a hydrogen atom; a linear or branched C₁-C₆ alkyl group in turn optionally substituted with halogen atoms; a C₃-C₆ alkenyl group in turn optionally substituted with halogen atoms; a Q₇ group; an arylalkyl group optionally substituted by one or more substituents selected from halogen; NO₂; CN; CHO; linear or branched C₁-C₆ alkyl; linear or branched C₁-C₆ haloalkyl; linear or branched C₁-C₆ alkoxyl; linear or branched C₁-C₆ haloalkoxyl; C₁-C₆ alkylsulfonyl; C₂-C₆ alkoxycarbonyl; or they jointly represent a C₂-C₅ alkylene chain;

D represents: a heterocyclic group of the heteroaryl or heterocyclic type, in all the above cases the heterocycle can be mono or polycyclic and can be connected to the rest of the structure either through one of its carbon atoms or, when possible, through one of its nitrogen atoms; ~~or it represents a mono or polycyclic aryl group, in this latter case, the group can also be partially saturated;~~

R_x represents a substituent selected from: hydrogen; halogen; NO₂; CN; CHO; OH; linear or branched C₁-C₆ alkyl; linear or branched C₁-C₆ haloalkyl; linear or branched C₁-C₆ alkoxyl; linear or branched C₁-C₆ haloalkoxyl; C₁-C₆ cyanoalkyl; C₂-C₆ alkoxyalkyl; C₂-C₆ alkylthioalkyl; C₂-C₆ alkylsulfinylalkyl; C₂-C₆ alkylsulfonylalkyl; C₂-C₆ haloalkoxyalkyl; C₂-C₆ haloalkylthioalkyl; C₂-C₆ haloalkylsulfinylalkyl; C₂-C₆ haloalkylsulfonylalkyl; C₂-C₆ alkoxyalkoxyl or C₂-C₆ haloalkoxyalkoxyl optionally substituted with a group selected from C₁-C₄ alkoxyl or C₁-C₄ haloalkoxyl; C₂-C₆ haloalkylthioalkoxyl; C₃-C₁₂ dialkoxyalkyl; C₃-C₁₂ dialkylthioalkyl; C₃-C₁₂ dialkylthioalkoxyl; C₃-C₁₂ dialkoxyalkoxyl; C₂-C₆ haloalkoxyhaloalkoxyl; C₃-C₁₀ alkoxyalkoxyalkyl; C₂-C₆ alkenyl; C₂-C₆ haloalkenyl; C₂-C₆ alkenyloxy; C₂-C₆ haloalkenyloxy; C₃-C₈ alkenyloxyalkoxyl; C₃-C₈ haloalkenyloxyalkoxyl; C₂-C₆ alkynyl; C₂-C₆ haloalkynyl; C₂-C₆ alkynyloxy; C₂-C₆ haloalkynyloxy; C₃-C₈

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

alkynyloxyalkoxyl; C₃-C₈ haloalkynyloxyalkoxyl; C₃-C₁₂ acylaminoalkoxy; C₂-C₈ alkoxyiminoalkyl; C₂-C₈ haloalkoxyiminoalkyl; C₃-C₈ alkenyloxyiminoalkyl; C₃-C₈ haloalkenyloxyiminoalkyl; C₃-C₈ alkynyloxyiminoalkyl; C₃-C₈ haloalkynyloxyiminoalkyl; C₅-C₁₀ alkoxyalkynyloxy; C₆-C₁₂ cycloalkylideneiminoalkoxy; C₆-C₁₂ dialkylideneiminoalkoxy; —S(O)_mR₁; —OS(O)_nR₁; —SO₂NR₂R₃; —CO₂R₄; —COR₅; —CONR₆R₇; —CSNR₈R₉; —NR₁₀R₁₁; —NR₁₂COR₁₃; —NR₁₄CO₂R₁₅; —NR₁₆CONR₁₇R₁₈; —PO(R₁₉)₂; —Q; —ZQ₁; —(CR₂₀R₂₁)_pQ₂; —Z(CR₂₂R₂₃)_pQ₃; —(CR₂₄R₂₅)_pZQ₄; —(CR₂₆R₂₇)_pZ(CR₂₈R₂₉)_qQ₅; —(CR₃₀R₃₁)_pZ(CR₃₂R₃₃)_qZ₁Q₆; —Z₂(CR₃₄R₃₅)_p(C=Y)T; —Z₃(CR₃₆R₃₇)_p(CR₃₈R₃₉=CR₄₀R₄₁)(C=Y)T; if several R_x groups are present, these can be the same or different;

n=1-9;

excluding the following compounds having general formula (I) wherein A, B and R have the following meanings: A=4-chlorophenyl, B=1-methylimidazol-2-yl, R=H; A=4-nitrophenyl, B=1-(2-hydroxyethyl)-5-nitroimidazol-2-yl, R=H; A=phenyl, B=1H-benzimidazol-2-yl, R=C₂H₅; A=phenyl, B=4H-1-benzopyran-4-yl, R=CH₃; A=4-nitrophenyl, B=3-(4-methylphenyl)-1,2,4-oxadiazol-5-yl, R=CH₃; A=phenyl, B=4-chloro-2,5-dioxo-2,5-dihydro-1H-pyrrrol-3-yl, R=CH₃; A=phenyl, B=2-acetyl-1,2,3,4-tetrahydroisoquinolin-1-yl, R=C₂H₅; A=2-hydroxy-4-methoxyphenyl, B=thiazol-4-yl, R=CH₃; A=phenyl, B=2,5-diphenyl-1,3-oxathiol-2-yl, R=CH₃; A=4-nitrophenyl, B=4,6-bis(dimethylamino)-1,3,5-triazin-2-yl, R=CH₃; A=phenyl, B=furan-2-yl, R=CH₃; A=phenyl, B=1,3-dithian-2-yl, R=CH₃; A=phenyl, B=4-chlorothien-2-yl, R=H; A=phenyl, B=5-bromothien-2-yl, R=H; A=phenyl, B=5-methylthien-2-yl, R=H; A=phenyl, B=6-phenylpyrazin-2-yl, R=CH₃; A=phenyl, B=3,4-dihydro-3-methyl-2-oxo-2H-1,3-benzo-oxazin-4-yl, R=CH₃; A=phenyl, B=benzothiazol-2-yl, R=CH₃; A=2-hydroxy-4-methoxyphenyl, B=2-phenylthiazol-4-yl, R=CH₃; A=phenyl, B=5-methylfuran-2-yl, R=CH₃; A=phenyl, B=3-(4-methylphenyl)-1,2,4-oxadiazol-5-yl, R=CH₃; A=phenyl, B=tetrahydrofuran-2-yl,

Application Number: 10/573,052
Examiner: HAVLIN, ROBERT H

R=CH₃; A=phenyl, B=2,3-dihydro-3-hydroxy-2-oxo-1H-indol-3-yl, R=CH₃,
A=phenyl, B=4-chloro-1-methyl-2,5-dioxo-2,5-dihydro-pyrrol-3-yl, R=CH₃;
A=phenyl, B=22-trifluoroacetyl-1,2,3,4-tetrahydroiso-quinolin-1-yl, R=C₂H₅;
A=phenyl, B=2-acetyl-1,2,3,4-tetrahydroisoquinolin-1-yl, R=CH₃;
A=4-nitrophenyl, B=2-(4-nitrophenyl)-3,5,6-triphenyl-pyridin-4-yl, R=CH₃;
A=phenyl, B=4,6-bis(dimethylamino)-1,3,5-triazin-2-yl, R=CH₃;
A=phenyl, B=4-methoxy-5-tert-butoxycarbonyl-1H-pyrro-2-yl, R=CH₃;
A=phenyl, B=1,3-dihydro-3-oxo-isobenzofuran-1-yl, R=CH₃; A=phenyl, B=(5-methoxycarbonylmethyl)thien-2-yl, R=H; A=phenyl, B=4-methylthien-2-yl, R=H;
A=phenyl, B=1,4-dihydro-1-methyl-3-nitroquinolin-4-yl, R=H; A=phenyl, B=thien-2-yl, R=H; A=phenyl, B=6-methylbenzothiazol-2-yl, R=CH₃; A=2-methoxycarbonylphenyl, B=phenyl, R=CH₃; A=2-benzyloxy-4-methoxyphenyl, B=2,3,4-trimethoxyphenyl, R=H; A=4,5-dimethoxy-2-nitrophenyl, B=3,4-dimethoxyphenyl, R=H; A=2-nitrophenyl, B=phenyl, R=H; A=2,4,5-trimethoxyphenyl, B=4-methoxyphenyl, R=H; A=4-bromophenyl, B=phenyl, R=H;
A=4-bromophenyl, B=2,4-dinitrophenyl, R=CH₃; A=4-chlorophenyl, B=phenyl, R=H; A=2,4-dibenzyloxy-5-methoxyphenyl, B=1,3-benzodioxol-5-yl, R=H;
A=2,4-dibenzyloxyphenyl, B=1,3-benzodioxol-5-yl, R=H; A=4-methoxyphenyl, B=2-carboxyphenyl, R=H; A=4-methylphenyl, B=2,4-dinitrophenyl, R=CH₃; A=4-hydroxy-3-methoxyphenyl, B=4-hydroxy-3-methoxyphenyl, R=H; A=2-nitrophenyl, B=4-methylphenyl, R=H; A=4-chlorophenyl, B=4-chlorophenyl, R=H; A=2,4-diacetoxyphenyl, B=phenyl, R=CH₃; A=3-methoxyphenyl, B=phenyl, R=C₂H₅;
A=4-nitrophenyl, B=phenyl, R=H; A=2-nitrophenyl, B=4-n-butoxyphenyl, R=H;
A=2-nitro-4-chlorophenyl, B=4-methylphenyl, R=H; A=phenyl, B=8-carboxynaphthalenyl, R=CH₃; A=2,5-dimethoxyphenyl, B=2-hydroxyphenyl, R=C₂H₅; A=4-fluorophenyl, B=2-nitro-4-trifluoromethylphenyl, R=CH₃;
A=3-chloro-4-methylphenyl, B=2,4-dinitrophenyl, R=CH₃; A=2-nitro-4-chlorophenyl, B=phenyl, R=H; A=4,5-dimethoxy-2-nitrophenyl, B=4-methylphenyl, R=H; A=2-carboxy-6-nitrophenyl, B=phenyl, R=CH₃; A=2,4,5-trimethoxyphenyl,

Application Number: 10/573,052

Examiner: HAVLIN, ROBERT H

B=3-methoxyphenyl, R=H; A=phenyl, B=4-bromophenyl, R=H; A=6-benzyloxy-2,3,4-trimethoxyphenyl, B=1,3-benzodioxol-5-yl, R=H; A=4,5-dimethoxy-2-nitrophenyl, B=4-methoxyphenyl, R=H; A=4,5-dimethoxy-2-nitrophenyl, B=4-chlorophenyl, R=H; A=2,4-dibenzyloxyphenyl, B=4-methoxyphenyl, R=H; A=4-methylphenyl, B=4-methylphenyl, R=H; A=4-dimethylaminophenyl, B=phenyl, R=H; A=4-methoxyphenyl, B=phenyl, R=H; A=4,5-dichloro-2-nitrophenyl, B=4-chlorophenyl, R=H; A=2-nitrophenyl, B=4-methoxyphenyl, R=H; A=phenyl, B=2,5-dimethoxycarbonylaminophenyl, R=CH₃; A=4-hydroxy-4-methoxyphenyl, B=2-methoxyphenyl, R=H; A=phenyl, B=4-methylphenyl, R=H; A=2-nitrophenyl, B=4-ethoxyphenyl, R=H; A=2-nitro-4-chlorophenyl, B=4-methoxyphenyl, R=H; A=4-chlorophenyl, B=phenyl, R=C₂H₅; A=2-t-butoxycarbonyl-5-ethyl-4-methoxyphenyl, B=2,3-dihydro-7-methyl-1,4-benzodioxin-6-yl, R=t-butyl; A=phenyl, B=2-nitro-4-trifluoromethylphenyl, R=CH₃; A=3,4-dichlorophenyl, B=2,4-dinitrophenyl, R=CH₃; A=4,5-dichloro-2-nitrophenyl, B=4-methoxyphenyl, R=H; A=4-methoxy-2-nitrophenyl, B=4-methylphenyl, R=H; A=phenyl, B=anthracene-9-yl, R=CH₃; A=phenyl, B=4-methoxyphenyl, R=H; A=2,4,5-trimethoxyphenyl, B=phenyl, R=H; A=2,4-diacetoxyphenyl, B=2,4,5-trimethoxyphenyl, R=CH₃; A=2-hydroxyphenyl, B=phenyl, R=H; A=4-methoxy-2-nitrophenyl, B=phenyl, R=H; A=4,5-dimethoxy-2-nitrophenyl, B=phenyl, R=H; A=2,4-dinitrophenyl, B=phenyl, R=CH₃; A=phenyl, B=phenyl, R=CH₃; A=phenyl, B=4-dimethylaminophenyl, R=H; A=phenyl, B=2,4-dinitrophenyl, R=CH₃; A=4,5-dichloro-2-nitrophenyl, B=4-methylphenyl, R=H; A=4-bromophenyl, B=phenyl, R=CH₃; A=2-(4-methylphenylsulfonyloxy)-6-methoxyphenyl, B=phenyl, R=H; A=4-methylsulfonylphenyl, B=2-methoxyphenyl, R=CH₃; A=4-methoxyphenyl, B=4-methoxyphenyl, R=CH₃; A=phenyl, B=4-chlorophenyl, R=H; A=2-nitrophenyl, B=4-nitrophenyl, R=H; A=phenyl, B=phenyl, R=H; A=2,4-dimethoxyphenyl, B=4-methoxyphenyl, R=H; A=2-nitrophenyl, B=4-n-hexyloxyphenyl, R=H; A=4-methoxy-2-nitrophenyl, B=4-methoxyphenyl, R=H; A=phenyl, B=9-carboxyphenanthren-10-yl, R=CH₃;

Application Number: 10/573,052
Examiner: HAVLIN, ROBERT H

A=phenyl, B=phenyl, R=CH₃; A=3,4-dimethoxyphenyl, B=3,4-dimethoxyphenyl, R=H; A=2,4-dimethoxyphenyl, B=phenyl, R=H; A=phenyl, B=2-hydroxy-3,4,6-trimethyl-5-methoxyphenyl, R=CH₃; A=4-chloro-2-nitrophenyl, B=4-chlorophenyl, R=H; A=2-nitrophenyl, B=4-chlorophenyl, R=H; A=2,4,5-trimethoxyphenyl, B=3,4-dimethoxyphenyl, R=H; A=4-chlorophenyl, B=2,4-dinitrophenyl, R=CH₃; A=4,5-dichloro-2-nitrophenyl, B=phenyl, R=H; A=4-methoxyphenyl, B=phenyl, R=CH₃; A=2,4-dibenzoyloxyphenyl, B=3,4-dimethoxyphenyl, R=H; A=4-methylthiophenyl, B=4-methoxyphenyl, R=CH₃; A=phenyl, B=phenyl, R=C₂H₅; A=4-methoxyphenyl, B=2,4-dinitrophenyl, R=CH₃; A=2-nitrophenyl, B=3-chlorophenyl, R=H; A=2-nitrophenyl, B=3,4-dimethoxyphenyl, R=H; A=4-methoxyphenyl, B=4-methoxyphenyl, R=H; A=2-hydroxyphenyl, B=4-methoxyphenyl, R=H; A=phenyl, B=2,5-bis(phenacylamino)phenyl, R=CH₃; A=4-nitrophenyl, B=4-methylphenyl, R=H; A=2-nitrophenyl, B=4-n-pentyloxyphenyl, R=H; A=4-methoxy-2-nitrophenyl, B=4-chlorophenyl, R=H; A=phenyl, B=2-carboxynaphthalen-1-yl, R=CH₃.

18 (Canceled):